UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

SUBJECT: Hydrogeological Review
Libbey Owens Ford Plant
Site Inspection

DATE: Feb. 21, 2018

FROM: Ayowale Ayodele, Geologist
Technical Support Branch (3HS41)

TO: Justin Bleiler, Site Assessment Manager

Consequent upon your request as to whether the site contaminants will pose a vapor intrusion threat via groundwater to the adjacent residential building at the Libbey Owens Ford Plant Site; the following are for your consideration.

Concerns:
1. The statement that "Surface and Subsurface Soil COCs do not appear to represent a significant source of contamination at the site" is somewhat not clear. According to the report, although VOCs were not present in surface and sub surface soil, but SVOCs were present and Arsenic was found in both soil and groundwater.

2. Lead (Pb) and Chromium (Cr) were found in sub surface soil but not in groundwater, and it appears that groundwater table of between 24 and 30 feet does exist on the site.

Conclusion:
As depicted by proper reviewing of Libbey Owens Site Inspection report, there are variety of factors that could influence vapor intrusion at the site;

- Concentration of the contaminant – which is above Industrial background level
- Type of soil – porous and permeable enough to transmit VOCs and SVOCs
- The depth to groundwater table – appears to occur between 24 and 30 feet
- Radius of the residential building from the site – exist about 0.25 miles
- Existence of underground utilities which can create pathways for vapors to travel – sparsely occur at the site
- Condition of the adjacent building foundation or slab- not quite known

Recommendation:
Based on the review of this SI report, the following recommendations should be considered:

- It is important to further characterize the groundwater flow direction and to determine the extent of site contaminant of concerns in groundwater;

- Additional on-site and off-site monitoring wells may be necessary to further review the present groundwater conditions, and to monitor the potential off-site migration of contaminants to the adjacent residential area;

- Groundwater Vapor Intrusion investigation may be necessary. However, this will be dependent on the result of the further groundwater investigation such as; types of aquifer system, depth at which the contaminants are found, groundwater flow path, extent of contaminants and some other factors listed above that influence vapor intrusion.

Should you have any questions or concerns, please contact me at **215-814-3265.**